

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

AMENDMENT TO THE CLAIMS

The listing of the claims is intended to replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

Please amend the claims as follows:

1. (Original) A method of wirelessly transmitting and re-transmitting sub-protocol data units between a transceiver and a subscriber unit, the method comprising:
 - the transceiver receiving standard data units and forming sub-protocol data units,
 - the transceiver transmitting a plurality of sub-protocol data units to the subscriber unit, a subset of the plurality of sub-protocol data units comprising an acknowledge request indicator;
 - the subscriber unit receiving the sub-protocol data units;
 - the subscriber unit transmitting back to the transceiver a response to the acknowledge request indicator, indicating which sub-protocol data units were successfully received by the subscriber unit.
2. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, further comprising:
 - the transceiver buffering the sub-protocol data units within transceiver buffers.
3. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 2, wherein the transceiver transmits a sub-protocol data unit comprising the

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

acknowledge request indicator when a last sub-protocol data unit within the transceiver buffers to be transmitted is reached.

4. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 2, wherein the transceiver transmits a sub-protocol data unit comprising the acknowledge request indicator when a predetermined number of sub-protocol data units have been transmitted since a previous sub-protocol data unit that comprised a previous acknowledge request indicator was transmitted.
5. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein a frequency in which sub-protocol data units comprising the acknowledge request indicator are transmitted is dependent upon a quality of wireless transmission link between the transceiver and the subscriber unit.
6. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein how frequently sub-protocol data units comprising the acknowledge request indicator are transmitted is dependent upon a predetermined time duration since the transmitter received a response to an acknowledge request indicator.
7. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein every transmitted sub-protocol data unit comprises an acknowledge request indicator after a predetermined time duration since the transmitter received a response to an acknowledge request indicator.

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

8. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein the response to the acknowledge request includes a bit map that comprises information about which sub-protocol data units have been successfully received by the subscriber.
9. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein the response to the acknowledge request includes a hole indicator that indicates which sub-protocol data units of a receiver window that includes a predetermined number of sub-protocol data units were not successfully received by the subscriber unit.
10. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, further comprising:
the transceiver re-transmitting the sub-protocol data units that were not successfully received by the subscriber unit.
11. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 10, wherein the re-transmitted sub-protocol data unit are provided with a different transmission priority than sub-protocol data unit that have not yet been transmitted.
12. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 10, wherein the re-transmitted sub-protocol data unit are provided with a different transmission mode than sub-protocol data units that have not yet been transmitted.

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

13. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 10, wherein the transmitted and re-transmitted sub-protocol data units are transmitted over a multiple channel transmission system, and the re-transmitted sub-protocol data units are transmitted over a higher quality channel than a channel in which the sub-protocol data units were initially transmitted.
14. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 2, wherein the transceiver aborts a transceiver buffer of sub-protocol data units if a response to an acknowledge request is not received after a given period of time.
15. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 2, wherein the transceiver clears a present transceiver buffer when the response to the acknowledge request has been received, and all sub-protocol data units have been successfully received by the subscriber unit.
16. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein the subscriber unit comprises a subscriber buffer in which received sub-protocol data units are buffered.
17. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 16, further comprising:

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

the subscriber unit aborting the subscriber buffer of received sub-protocol data units if sub-protocol data units with errors are not correctly retransmitted after a given period of time.

18. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 1, wherein the subscriber unit transmits a pseudo response to an acknowledgement indicator if the subscriber fails to receive re-transmitted sub-protocol data units after a predetermined amount of time.

19. (Original) A method of wirelessly transmitting and re-transmitting sub-protocol data units from a transceiver, the method comprising:

the transceiver receiving standard data units and forming sub-protocol data units,
the transceiver transmitting a plurality of sub-protocol data units to a subscriber unit, a subset of the plurality of sub-protocol data units comprising an acknowledge request indicator;
the transceiver receiving a response to at least one acknowledge request indicator, each response including an indication of which sub-protocol data units were successfully received by the subscriber unit; and
the transceiver re-transmitting the sub-protocol data units that were not successfully received by the subscriber unit.

20. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, further comprising:

the transceiver buffering the sub-protocol data units within transceiver buffers.

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

21. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 20, wherein the transceiver transmits a sub-protocol data unit comprising the acknowledge request indicator when a last sub-protocol data unit within the transceiver buffers to be transmitted is reached.
22. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 20, wherein the transceiver transmits a sub-protocol data unit comprising the acknowledge request indicator when a predetermined number of sub-protocol data units have been transmitted since a previous sub-protocol data unit that comprised a previous acknowledge request indicator was transmitted.
23. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, wherein a frequency in which sub-protocol data units comprising the acknowledge request indicator are transmitted is dependent upon a quality of wireless transmission link between the transceiver and the subscriber unit.
24. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, wherein how frequency sub-protocol data units comprising the acknowledge request indicator are transmitted is dependent upon a predetermined time duration since the transmitter received a response to an acknowledge request indicator.
25. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, wherein every transmitted sub-protocol data unit comprises an acknowledge

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

request indicator after a predetermined time duration since the transmitter received a response to an acknowledge request indicator.

26. (Currently Amended) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim ~~10~~ 19, wherein the re-transmitted sub-protocol data unit are provided with a different transmission priority than sub-protocol data unit that have not yet been transmitted.
27. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, wherein the re-transmitted sub-protocol data unit are provided with a different transmission mode than sub-protocol data units that have not yet been transmitted.
28. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 19, wherein the re-transmitted sub-protocol data unit are transmitted over a better of multiple transmission channels of a multiple antennae transmitter.
29. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 20, wherein the transceiver aborts a transceiver buffer of sub-protocol data units if a response to an acknowledge request is not received after a given period of time.
30. (Original) The method of wirelessly transmitting and re-transmitting sub-protocol data units of claim 20, wherein the transceiver clears a present transceiver buffer when the response to the

Appl. No.: 09/975,128

Amendment Dated: 11/11/05

Reply to OA of 7/12/05

acknowledge request has been received, and all sub-protocol data units have been successfully received by the subscriber unit.

31. (New) An apparatus comprising:

a controller to receive standard data units and to form sub-protocol data units for transmission to a remote transceiver, at least one of the plurality of sub-protocol data units including an acknowledge request indicator, and to receive a response to at least one acknowledge request indicator from the remote transceiver, the response(s) including an indication of which sub-protocol data units were successfully received by the remote transceiver, and to selectively re-transmit at least a subset of the sub-protocol data units indicated in the response; and

a transmitter, responsive to the controller, to transmit and selectively re-transmit sub-protocol data units as indicated by the controller to the remote transceiver.

32. (New) An apparatus according to claim 31, wherein the apparatus is a transceiver, and the controller is a media access controller (MAC) of the transceiver.

33. (New) An apparatus according to claim 31, wherein the apparatus is a transceiver and the controller is an element of the physical (PHY) interface of the transceiver.